IOWA STATE UNIVERSITY
Digital Repository

Volume 14 | Number 6 Article 4

12-1-1959

Storage and Supports Have Worked, But...

Geoffrey Shepherd
Iowa State University

Francis Kutish
Iowa State University

Don Kaldor
Iowa State University

Richard Heifner
Iowa State University

Arnold Paulsen
Iowa State University

Storage and Supports Have Worked, BUT...

. . . what would have happened without them in the 1952-58 period? Farm prices and incomes would have dropped, say these authors. Withholding grain did have the effect of raising prices and incomes in this period. But is it possible we have only borrowed this increase from the future?

by Geoffrey Shepherd, Francis Kutish, Don Kaldor, Richard Heifner and Arnold Paulsen

THE LARGE STOCKS of feed grains that have been accumulating in CCC storage in recent years have grown still larger in 1959. The farming industry seems to have a bear by the tail, and it doesn't quite know how to let go —or what would happen if it did.

Questions are being raised about whether farmers might not have been better off if there had not been a loan and storage program for feed grains in the first place—and whether the program should be ended and prices returned to the free market.

Main interest, of course, centers on the possible effects on prices and farm income in the absence of such a program. What would have happened, for example, to farm income and livestock prices if feed grain price supports had been enough lower so that feed grain carryover wouldn't have grown any larger after 1952? Intensified research by the Experiment Station and the Center for Agricultural and Economic Adjustment at Iowa State throws some light on this question.

Let's look at this question in three steps: (1) How much would livestock production have increased if the large amounts of corn and other feed grains that went into storage during 1952-58 had been fed to livestock instead? (2) How much lower would livestock prices have had to be to induce consumers to eat the larger supplies of meat, milk and eggs? (3) What would have happened to farm income from livestock as a result of the lower prices?

THE AUTHORS are all of the Department of Economics and Sociology and the Center for Agricultural and Economic Adjustment. The research was partly financed with regional NCM-11 funds.

Grain, Livestock Effects . . .

Each year from 1952 to 1958, from 4 to 10 million tons of feed grains were added to the carryover. These amounts—averaging 6.3 percent of the total annual consumption by livestock—went into storage, rather than into livestock.

What would have happened if this additional amount had been fed to livestock each year? All classes of livestock wouldn't have been able to increase consumption of feed grains by the same percentage. Production of some kinds of livestock is more easily expanded than others. Also, feed grains make up a different percentage of the total feed for each kind of livestock.

Our judgment is that the increase in the supply of beef cattle in response to more and lower-priced feed grains over the past 7 years would have been small. Among other factors, feed grains make up a small proportion of the total feed required for the nation's beef herd, and the supply of rangeland where most beef cattle are produced is relatively fixed. Still, we estimated that 15 percent of the average annual surplus would be used for beef cattle.

The situation would have been different for hogs, broilers and turkeys. Numbers of hogs and turkeys could be increased within a year; broilers, in about 3 months. Feed grains make up a large proportion of the total ration for hogs and poultry, so more and cheaper feed grains would quickly stimulate production. It's likely, therefore, that a large share of the increase in consumption of feed grains would have gone into hogs, broilers and turkeys.

Generally, the prices of *all* livestock and livestock products would have been lower from 1952 to 1958 if we had fed our feed grain stocks. Though total beef consumption, for example, would have had to increase only 1 percent—or less than a pound per person—to use up the increased supply, cattle prices would have been about 5 percent lower. This is mainly because pork supplies would have been substantially larger. Beef prices would have declined to prevent a reduced beef consumption because of a substitution of pork for beef.

Pork prices would have dropped almost 19 percent—mainly because the supply of pork would have increased sharply, nearly 7½ percent. Egg and poultry prices would have dropped about 13 percent, mostly because all meats would have been in larger supply and cheaper than usual. Poultry and eggs seem to be "fill-in" foods for red meat, and their prices drop sharply when all meat supplies increase.

The estimated drop in total income from the sale of livestock and livestock products would have been slightly over 6 percent. But since production would have increased, gross income wouldn't have been reduced as much as the prices.

Add in Wheat . . .

So far, we've considered only feed grains. But it's likely that, if we hadn't permitted the stocks of feed grains to increase, we wouldn't have permitted wheat stocks to increase either. If, in other words, we'd put all of the current production of feed grains on the market during 1952-1958, we'd have done the same thing

for wheat. In that case, the price of wheat would have fallen to feed grain levels, and large quantities of wheat would have been used for this purpose.

Most of the extra wheat would have been fed to livestock. The demand for wheat for human food doesn't change much, and hardly any more would have been used for human food in the United States, even at very low prices. Also, if we had cut the price of wheat in foreign markets, Canada, Argentina and Australia probably would have matched our price cuts. Thus, we'd have sold only a little more abroad.

For practical purposes, adding the net additions to wheat storage during 1952-58 to the 6.3-percent increase in feed grains would have meant that consumption by livestock would have been 10.3 percent larger than it actually was.

Hog production then would have been about 12 percent larger; poultry production, about 10 percent larger. The nation's farms had the capacity to produce this volume of livestock production without difficulty. But the total value of the larger pig crops would have been about 22 percent lower than the value of the smaller pig crops that actually were marketed in 1952-1958. The total value of all livestock production would have been reduced about 10½ percent.

Is This the Case?

The estimates we've just outlined are based on the assumption that production of feed grains and wheat wouldn't have changed much in response to the lower prices and incomes that would have resulted from the higher rates of feed consumption.

Some observers, however, disagree with this assumption. Some say that lower feed grains and wheat prices would have reduced their production — that farmers would have produced less in response to lower prices. Others say, though, that it would have increased production—that farmers would have produced more in an attempt to offset the lower prices.

Our own belief is that, over the period as a whole, some initial changes in production would have taken place as feed grain and wheat prices declined and as producers shifted some acreage to competing crops. But this shift to other crops would quickly have reduced their prices, too. So the prices of most farm products would have been reduced in roughly similar proportions. Under these conditions—since there's not much "give" in total acreage —we believe that total feed grains and wheat production wouldn't have changed much either way.

Income Changes . . .

As indicated earlier, livestock prices would have been lower if we'd fed the stocks of wheat and feed grains accumulated during 1952-1958. To bring about increased livestock feeding and production (with consequently lower livestock prices), feed grain prices would have had to be about 24 percent lower than they were. Corn prices would have averaged about $1 rather than $1.32 per bushel. Wheat prices would have dropped to a level about 10 percent higher than feed grains, or from $1.98 to $1.11 per bushel.

Lower grain prices would have reduced the incomes of farmers selling grain and reduced the costs of farmers buying grain. Some who normally sell feed grains would have fed the grains instead. Many specialized wheat farmers would have continued to produce wheat for sale, however, and a large proportion would have been sold off the farm. Thus, the effects on income would have been vastly different between farms in the Great Plains and farms in the Corn Belt, as well as between cash-grain farmers and livestock farmers.

From the standpoint of income from both livestock and feed grains, we estimate that net farm income would have dropped about 33 percent from what it was during the 1952-58 period. Cash receipts from livestock made up 54 percent of total cash receipts in agriculture during this period. Production in this large sector of agriculture would have expanded in volume—but the value of this production would have decreased in absolute terms if we'd fed the stocks. Income from feed and food grains would have decreased sharply, and this would have contributed almost as much to the decline in cash receipts as would livestock. Total cash receipts would have averaged about 3½ billion dollars less during the period.

Cash expenses would have remained about constant during 1952-58 if we had fed, rather than accumulated, stocks. Increased livestock volume would have increased the cost of purchased feed. But lower livestock prices would have reduced the cost of purchased livestock. The net change in total cash expenditures might have been about 1 percent.

Though receipts would have declined about 11½ percent—and costs by 1 percent—net income would have declined 33 percent. Net income is quite vulnerable to changes in gross income; costs tend to remain steady, so net income then must absorb all of the change in gross income.

The Future?

There's a danger in assuming that the higher prices and incomes that resulted from storage and price supports being set above long-run equilibrium levels during 1952-58 are all net gain. With the possible exception of some satellites, what goes up must come down.

Withholding large quantities of grains from the market raised prices and incomes while the stocks were accumulating. But stocks can't go on increasing forever. Sooner or later, they'll reach the limit of public support. If the public begins to believe that agriculture — and the nation as a whole—may get more for its money spent in other ways, and acts on that belief, the size of the stocks will begin to decline.

Presumably, the decline in the stocks will depress prices and incomes by just about as much as the accumulation of the stocks raised them in the first place. In effect, the 1952-58 increase in income may only have been borrowed from the future, and, in one way or another, it may have to be paid back.